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ECM #72212
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New York, NY 10163-4668

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| EXAMINER |
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KAWSAR, ABDULLAH AL

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| ART UNIT | PAPER NUMBER |
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2195

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| NOTIFICATION DATE | DELIVERY MODE |
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09/03/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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idotuchman@gmail.com

| | | | |
|------------------------------|---------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/650,107 | Applicant(s) HUNT ET AL. | |
| | Examiner ABDULLAH AL KAWSAR | Art Unit 2195 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5, 7-11 are pending.
2. In view of the Appeal Brief filed on (07/17/2008), PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below. If an appellant wishes to reinstate an appeal after prosecution is reopened, appellant must file a new notice of appeal in compliance with 37 CFR 41.31 and a complete new appeal brief in compliance with 37 CFR 41.37. Any previously paid appeal fees set forth in 37 CFR 41.20 for filing a notice of appeal, filing an appeal brief, and requesting an oral hearing (if applicable) will be applied to the new appeal on the same application as long as a final Board decision has not been made on the prior appeal. If, however, the appeal fees have increased since they were previously paid, then appellant must pay the difference between the current fee(s) and the amount previously paid. Appellant must file a complete new appeal brief in compliance with the format and content requirements of 37 CFR 41.37(c) within two months from the date of filing the new notice of appeal. See MPEP § 1205.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Tivoli Storage Network Manager”(Tivoli) in view of Numanio et al(Numanio) US Patent Publication No. 20030220899.

5. As per claim 1, Tivoli teaches the invention substantially as claimed including a method for managing a multi-tiered resource system (page 1, col 1, lines 1-6 “Tivoli Storage Network Manager is a comprehensive..... associated storage resources.”), the method comprising:

automatically determining if a resource tier is in compliance with a management policy (page 2, col 2, “Establishing file system.... SAN” lines 1-4 through col 3, lines 1-7); and

if the resource tier is not in compliance with the management policy, increasing available capacity in containers in order to bring the containers in compliance with the management policy (page 1, col 1, lines 14-19 “Tivoli Storage Network Manager provides features administrator-defined policies.”) .

Tivoli does not specifically disclose wherein the management policy includes requiring that an expiration date of the resource tier occur after a maintenance date.

However, Numanio teaches that the management policy includes requiring that an expiration date (exceeds 100%) of the resource tier occur after a maintenance date(requiring data move a month before reaches the limit) (par. 0026).

6. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Tivoli into the method of Numanio to have a

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management policy requiring an expiration data of the resource tier after the maintenance date.

The modification would have been obvious because one of the ordinary skills of the art would utilize the SAN policy in Numanio to be able to predict the storage capacity of the system before it reaches a threshold and take appropriate action according to that.

7. As per claim 2, Tivoli teaches that increasing available capacity in containers includes allocating additional capacity to containers belonging to the resource tier until the resource tier is in compliance with the management policy (page 2, col 3, lines 8 – 14 “When a threshold is exceeded, Tivoli additional capacity.”).

8. As per claim 3, Tivoli teaches that allocating additional capacity to the containers includes utilizing a capacity reserve belonging to the resource tier (page 1, col 3, lines 5 – 9 “Monitor file systems to automatically processing”).

9. As per claim 4, Tivoli teaches wherein allocating additional capacity to the containers includes utilizing available capacity from other containers in the resource system (Page 2, col 1, lines 32-35 through page 2, col 2, lines 1-9 “With Tivoli storage network manager you can securely assign choice and used exclusively by the assigned computer.”).

10. As per claim 11, Numanio teaches that increasing available capacity in containers includes compressing data within the resource tier until the resource tier is in compliance with the management policy (par. 0060).

11. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Tivoli Storage Network Manager”(Tivoli) in view of Numanio et al(Numanio) US Patent Publication No. 20030220899, and in view of Mummert et al(Mummert) US Patent No. 6427152.

12. As per claim 7, Tivoli and Numanio do not specifically disclose that calculating the expiration date of the resource tier.

However, Mummert teaches that calculating the expiration date of the resource tier (col 1, lines 50-56).

13. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Mummert into the combined method of Tivoli and Numanio to calculate the expiration date of the resource tier. The modification would have been obvious because one of the ordinary skills of the art would utilize the method of Mummert to calculate the life expectancy of the resource to be able to predict a more precise storage capacity planning.

14. As per claim 8, Mummert teaches that calculating the expiration date of the resource tier includes calculating a life expectancy of each container belonging to the resource tier (col 3, lines 2-9; col 6, lines 5-13).

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15. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Tivoli Storage Network Manager”(Tivoli) in view of Numanio et al(Numanio) US Patent Publication No. 20030220899, and in view of Koclanes et al.(Koclanes) US Patent Publication No. 20040243699.

16. As per claim 5, Tivoli and Numanio do not specifically disclose allocating additional capacity to the containers includes allocating additional capacity to containers of higher importance before allocating additional capacity to containers of lower importance

However, Koclanes teaches that allocating additional capacity to the containers includes allocating additional capacity to containers of higher importance before allocating additional capacity to containers of lower importance (par. 0090, lines 6-33).

17. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Koclanes into the combined method of Tivoli and Numanio to allocate data in container with higher importance before allocating data in containers of lower importance. The modification would have been obvious because one of the ordinary skills of the art would utilize the defined policy of Koclanes which identifies the importance of application and utilizes that to respond to the important application with storage allocation before allocating storage to other application with lower importance in storage allocation system.

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18. As per claim 10, Koclanes teaches that if the resource tier cannot be brought in compliance with the management policy, alerting that the resource tier is not in compliance with the management policy (par. 0060, lines 41-58).

Allowable Subject Matter

19. Claim 9 is objected as being dependent upon a rejected base claim, but would be allowable if written including all the limitations of the base claim and any intervening claims.

Response to Amendment

20. Applicant's arguments in respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH AL KAWSAR whose telephone number is (571)270-3169. The examiner can normally be reached on 7:30am to 5:00pm, EST.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai T. An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

/Abdullah-Al Kawsar/
Examiner, Art Unit 2195